

## CLAIMS

What is claimed is:

1. A method for delivering data, in a wireless system comprising a distributed infrastructure of access points, said method comprising:  
identifying a plurality of access points to be used cooperatively in combination with each other for the transmission of said data to a receiver, wherein said cooperative usage of said plurality of access points is maintained for at least some portion of a data transmission period; and  
enabling the transmission of said data to said receiver via said plurality of access points, wherein said data is transmitted in a pattern that uses at least two access points during at least some portion of said data transmission period.
2. The method recited in claim 1 wherein said pattern is selected from a group of predetermined transmission patterns.
3. The method of Claim 1 wherein said pattern is a split-balanced transmission pattern.
4. The method of Claim 1 wherein said pattern is a site selection transmission pattern.
5. The method of Claim 1 wherein said pattern is a combination of a split-balanced transmission pattern and a site selection transmission pattern.
6. The method of Claim 1 wherein respective access points of said plurality of access points operate cooperatively and in combination by transmitting different portions of said data in an alternating manner.
7. The method of Claim 1 wherein respective access points of said plurality of access points operate cooperatively and in combination by facilitating the transmission of a majority of said data over a first access point and the transmission of a remainder of said data over a second access point.
8. The method of Claim 7 wherein said remainder of said data is used to gather information related to said second access point.

9. The method of Claim 1 wherein said pattern is selected based upon information from the group consisting of various predetermined patterns, measurements from a variety of sources, and the content of said data to be transmitted.

10. A method for delivering data utilizing a multi-access point transmission scheme, said method comprising:

identifying a plurality of access points to be used cooperatively in combination with each other for the transmission of said data to a receiver wherein said cooperative usage of said plurality of access points is maintained for at least some portion of a data transmission period;

delivering a first portion of said data to said receiver via a first access point; and

delivering a second portion of said data to said receiver via a second access point, wherein said first portion of said data and said second portion of said data are delivered to said receiver utilizing at least one predetermined multi-access point transmission scheme.

11. The method of Claim 10 wherein said multi-access point transmission scheme comprises a split-balanced transmission scheme wherein data portions are evenly balanced across said plurality of access points.

12. The method of Claim 11 wherein said multi-access point transmission scheme comprises a site selection multi-access point transmission scheme wherein said first and said second access points operate cooperatively and in combination and wherein a transmission of a majority of said data is made over said first access point and the transmission of a remainder of said data is made over said second access point.

13. The method of Claim 12 wherein said remainder of said data is used to gather information related to said second access point.

14. The method of Claim 12 wherein said split-balanced multi-access point transmission scheme and said site selection multi-access point transmission scheme are used in conjunction.

15. The method of Claim 10 wherein said first and said second access points operate cooperatively and in combination by transmitting different portions of said data in an alternating manner.

16. A system for data delivery in a wireless system comprising a distributed infrastructure of access points, said system comprising:  
an access point identifier that identifies a plurality of access points to be used cooperatively in combination with each other for the transmission of said data from a sender to a receiver wherein said cooperative usage of said plurality of access points is maintained for at least some portion of a data transmission period; and  
a multi-access point data transmission enabler communicatively coupled to said access point identifier, said multi-access point data transmission enabler enabling the transmission of said data to said receiver via said plurality of access points by utilizing at least one multi-access point transmission scheme that uses at least two access points during at least some portion of said data transmission period.

17. The system of Claim 16 further comprising:  
a measurement subsystem coupled to said multi-access point data transmission enabler, said measurement sub-system providing measurements that are used by said multi-access point data transmission enabler to determine data packet allocations across said plurality of access points.

18. The system of Claim 17 further comprising:  
a data packet relaying component coupled to said multi-access point data transmission enabler, said data packet relaying component for relaying data packets to said receiver that are transmitted to said data packet relaying component from said sender.

19. The system of Claim 18 wherein said access point identifier, said multi-access point data transmission enabler, said measurement sub-system, and said data packet relaying component are all resident at the same system node.

20. The system of Claim 18 wherein said access point identifier, said multi-access point data transmission enabler, said measurement sub-

system, and said data packet relaying component are not all resident at the same system nodes.

21. The system of Claim 18 wherein said access point identifier and said multi-access point data transmission enabler are resident at said receiver.

22. The system of Claim 18 wherein said access point identifier and said multi-access point data transmission enabler are resident at said sender.

23. The system of Claim 18 wherein said access point identifier and said multi-access point data transmission enabler are resident at least one intermediate system node.

24. The system of Claim 18 wherein said access point identifier and said multi-access point data transmission enabler are located at least one of said plurality of access points.

25. A computer useable medium having computer useable code embodied therein for causing a computer to perform operations comprising:  
identifying a plurality of access points to be used cooperatively in combination with each other for the transmission of said data to a receiver, wherein said cooperative usage of said plurality of access points is maintained for at least some portion of a data transmission period; and  
enabling the transmission of said data to said receiver via said plurality of access points utilizing at least one predetermined multi-access point transmission scheme that uses at least two access points during at least some portion of said data transmission period.

26. The computer useable medium of Claim 25 wherein said enabling said transmission of said data comprises utilizing at least one multi-access point transmission scheme that comprises a split balanced multi-access point transmission scheme.

27. The computer useable medium of Claim 25 wherein said enabling said transmission of said data comprises utilizing at least one multi-access point transmission scheme that comprises a site selection multi-access point transmission scheme.

28. The computer useable medium of Claim 25 wherein said enabling said transmission of said data comprises utilizing a split-balanced transmission scheme and a site selection multi-access point transmission scheme that are used in conjunction.

29. The computer useable medium of Claim 25 wherein respective access points of said plurality of access points operate cooperatively and in combination by transmitting different portions of said data in an alternating manner.

30. The computer useable medium of Claim 25 wherein respective access points of said plurality of access points operate cooperatively and in combination by facilitating the transmission of a majority of said data over a first access point and the transmission of a remainder of said data over a second access point.

31. The computer useable medium of Claim 30 wherein said remainder of said data is used to gather information related to said second access point.

32. The computer useable medium of Claim 25 wherein the use of said multi-access point transmission scheme is based upon information that is selected from the group consisting of a predetermined pattern, measurements from a variety of sources, and the content of said data to be transmitted.

33. A method for delivering data, in a wireless system comprising a distributed infrastructure of access points, said method comprising:  
    identifying a plurality of access points to be used cooperatively in combination with each other for the transmission of said data to a receiver;  
    and  
    enabling the transmission of said data to said receiver via said plurality of access points utilizing at least one multi-access point transmission scheme.

34. The method of Claim 33 wherein said enabling said transmission of said data comprises utilizing at least one multi-access point transmission scheme that comprises a split-balanced transmission scheme.

35. The method of Claim 33 wherein said enabling said transmission of said data comprises utilizing at least one multi-access point transmission scheme that comprises a site selection multi-access point transmission scheme.

36. The method of Claim 33 wherein said enabling said transmission of said data comprises utilizing a split-balanced transmission scheme and a site selection multi-access point transmission scheme that are used in conjunction.

37. The method of Claim 33 wherein respective access points of said plurality of access points operate cooperatively and in combination by transmitting different portions of said data in an alternating manner.

38. The method of Claim 33 wherein respective access points of said plurality of access points operate cooperatively and in combination by facilitating the transmission of a majority of said data over a first access point and the transmission of a remainder of said data over a second access point.

39. The method of Claim 38 wherein said remainder of said data is used to gather information related to said second access point.

40. The method of Claim 33 wherein said multi-access point transmission scheme is selected based upon information from the group consisting of a predetermined pattern, measurements from a variety of sources, and the content of said data to be transmitted.